



United States Environmental Protection Agency  
Washington, D.C. 20460

## Water Compliance Inspection Report

### Section A: National Data System Coding (i.e. PCS)

Transaction Code NPDES yr/mo/day Inspection Type Inspector Fac Type  
1 N 2 5 3 DC0000094 11 12 15/05/06 17 18 C 19 S 20 2  
Remarks  
21 \_\_\_\_\_ 66  
Inspection Work Days Facility Self-Monitoring Evaluation Rating B1 QA -----Reserved-----  
67 \_\_\_\_\_ 69 \_\_\_\_\_ 70 \_\_\_\_\_ 71 \_\_\_\_\_ 72 \_\_\_\_\_ 73 \_\_\_\_\_ 74 \_\_\_\_\_ 75 \_\_\_\_\_ 80 \_\_\_\_\_

### Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Potomac Electric Power Company, Inc. Benning Generating Station  
3400 Benning Road, NE Washington, DC 20019

Entry Time/Date

9:30 AM May 6, 2015

Permit Effective Date

06/19/2009

Exit Time/Date

12:30 PM May 6, 2015

Permit Expiration Date

06/18/2014

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

1. Fariba Mahvi, Lead Environmental Engineer, PEPCO Holdings, Inc., 202-331-6641
2. Heather Brinkerhoff, HB Consulting, LLC 202-330-7431
3. Mike Williams, Asset Manager, PEPCO Energy Services, 202-388-2521.
4. Larry J. Freeman, Site Manager, PEPCO Energy Services, 703-789-3754
5. Larry Merkel, Construction Mechanic, PEPCO Holdings, Inc., 202-388-2147
6. Terry Meno, Environmental Technician, PEPCO Holdings, Inc.
7. David Barrow, Chemistry Lab Technician, PEPCO Holdings, Inc. 202-388-2369
8. Steve Ortel Lab Manager, PEPCO Holdings, Inc. 202-388-2369

Other Facility Data (e.g., ISC NAICS, and other descriptive information)

Name, Address of Responsible Official/Title/Phone and Fax Number

George Nelson, Vice President Operations and Engineering.  
701 Ninth Street, NW, Washington, DC 20068

Contacted

☒ Yes ☐ No

### Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Compliance Schedules	<input checked="" type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input checked="" type="checkbox"/> Laboratory	<input checked="" type="checkbox"/> Storm Water	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input checked="" type="checkbox"/> Flow Measurement	<input type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

### Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes

SEV Description

A0012 Numeric effluent violation: A total of 6 sampling events resulted in Numeric effluent violations. Each violation was reported to EPA.

Name(s) and Signature(s) of Inspector(s)

David Pilat

*[Signature]* 5/6/2015

Agency/Office/Phone and Fax Numbers

District Department of the Environment /Water Quality Division/ 202-281-3963

Date

May 6, 2015

Isaac Kelliey

*[Signature]* 5/6/2015

District Department of the Environment /Water Quality Division/ 202.535.2691

May 6, 2015

Signature of Management Q A Reviewer

Agency/Office/Phone and Fax Numbers

Date

		PERMIT NO. <u>DC0000094</u>
SECTIONS F THRU L: COMPLETE ON ALL INSPECTIONS, AS APPROPRIATE. N/A = NOT APPLICABLE		
SECTION F - FACILITY AND PERMIT BACKGROUND		
ADDRESS OF PERMITTEE IF DIFFERENT FROM FACILITY (Including City, County and ZIP code) same	DATE OF LAST PREVIOUS INVESTIGATION BY EPA/STATE November 20, 2013 by DDOE	
	FINDINGS: 20 Effluent limit excursions were noted between FY 2013 and FY 2014 inspection.	
SECTION G - RECORDS AND REPORTS		
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. <u>X</u> YES ____ NO ____ N/A (Further explanation attached ____)		
DETAILS:		
(a) ADEQUATE RECORDS MAINTAINED OF:		
(i) SAMPLING DATE, TIME, EXACT LOCATION	<u>X</u> YES	__ NO __ N/A
(ii) ANALYSES DATES, TIMES	<u>X</u> YES	__ NO __ N/A
(iii) INDIVIDUAL PERFORMING ANALYSIS	<u>X</u> YES	__ NO __ N/A
(iv) ANALYTICAL METHODS/TECHNIQUES USED	<u>X</u> YES	__ NO __ N/A
(v) ANALYTICAL RESULTS (e.g., consistent with self-monitoring report data)	<u>X</u> YES	__ NO __ N/A
(b) MONITORING RECORDS (e.g., flow, pH, D.O., etc.) MAINTAINED FOR A MINIMUM OF THREE YEARS INCLUDING ALL ORIGINAL STRIP CHART RECORDINGS (e.g., continuous monitoring instrumentation, calibration and maintenance records).	<u>X</u> YES	__ NO __ N/A
(c) LAB EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS KEPT.	<u>X</u> YES	__ NO __ N/A
(d) FACILITY OPERATING RECORDS KEPT INCLUDING LOGS FOR EACH TREATMENT UNIT.	<u>X</u> YES	__ NO __ N/A
(e) QUALITY ASSURANCE RECORDS KEPT.	<u>X</u> YES	__ NO __ N/A
(f) RECORDS MAINTAINED OF MAJOR CONTRIBUTING INDUSTRIES (and their compliance status) USING PUBLICLY OWNED TREATMENT WORKS.	__ YES	__ NO <u>X</u> N/A
SECTION H - PERMIT VERIFICATION		
INSPECTION OBSERVATIONS VERIFY THE PERMIT. <u>X</u> YES ____ NO ____ N/A (Further explanation attached <u>X</u> )		
DETAILS:		
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.	<u>X</u> YES	__ NO __ N/A
(b) FACILITY IS AS DESCRIBED IN PERMIT Facility has been decommissioned and is scheduled to complete dismantling end of May 2015.	__ YES	<u>X</u> NO __ N/A
(c) PRINCIPAL PRODUCT(S) AND PRODUCTION RATES CONFORM WITH THOSE SET FORTH IN PERMIT APPLICATION. Facility no longer produces products	__ YES	<u>X</u> NO __ N/A
(d) TREATMENT PROCESSES ARE AS DESCRIBED IN PERMIT APPLICATION. Onsite oil water separator still in service to treat stormwater.	<u>X</u> YES	__ NO __ N/A
(e) NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES	<u>X</u> YES	__ NO __ N/A
(f) ACCURATE RECORDS OF RAW WATER VOLUME MAINTAINED. Facility no longer uses raw water	__ YES	<u>X</u> NO __ N/A
(g) NUMBER AND LOCATION OF DISCHARGE POINTS ARE AS DESCRIBED IN PERMIT.	__ YES	<u>X</u> NO __ N/A
(h) CORRECT NAME AND LOCATION OF RECEIVING WATERS.	<u>X</u> YES	__ NO __ N/A
(i) ALL DISCHARGES ARE PERMITTED.	<u>X</u> YES	__ NO __ N/A
Comments: The power plant has been decommissioned, dismantled and the discharge from power plant operations have ceased.		



	PERMIT NO. <b>DC0000094</b>
<b>SECTION I - OPERATION AND MAINTENANCE</b>	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A (Further explanation attached <input type="checkbox"/> ) DETAILS:.	
(a) STANDBY POWER OR OTHER EQUIVALENT PROVISIONS PROVIDED.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(b) ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(c) REPORTS ON ALTERNATE SOURCE OF POWER SENT TO EPA/STATE AS REQUIRED BY PERMIT.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
(d) SLUDGES AND SOLIDS ADEQUATELY DISPOSED. <b>Once per year by Clean Ventures, Inc.</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(e) ALL TREATMENT UNITS IN SERVICE.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(f) CONSULTING ENGINEER RETAINED OR AVAILABLE FOR CONSULTATION ON OPERATION AND MAINTENANCE PROBLEMS. <b>Mostly in-house staff, and AMEC</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(g) QUALIFIED OPERATING STAFF PROVIDED.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(h) ESTABLISHED PROCEDURES AVAILABLE FOR TRAINING NEW OPERATORS. <b>Training manual, on-job training</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(i) FILES MAINTAINED ON SPARE PARTS INVENTORY, MAJOR EQUIPMENT SPECIFICATIONS, AND PARTS AND EQUIPMENT SUPPLIERS.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(j) INSTRUCTIONS FILES KEPT FOR OPERATION AND MAINTENANCE OF EACH ITEM OF MAJOR EQUIPMENT.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(k) OPERATION AND MAINTENANCE MANUAL MAINTAINED. <b>SOPs for preventive maintenance (e.g. O/W separator)</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(l) SPCC PLAN AVAILABLE. <b>Integrated Contingency Plan (ICP) revised 2010, SWPP revised 2012.</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
(m) REGULATORY AGENCY NOTIFIED OF BY-PASSING. (Dates <input type="checkbox"/> )	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
(n) ANY BY-PASSING SINCE LAST INSPECTION.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
(o) ANY HYDRAULIC AND/OR ORGANIC OVERLOADS EXPERIENCED.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
<b>SECTION J - COMPLIANCE SCHEDULES</b>	
PERMITTEE IS MEETING COMPLIANCE SCHEDULE. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A (Further explanation attached <input checked="" type="checkbox"/> )	
CHECK APPROPRIATE PHASE(S): TMDL Implementation Plan	
<input checked="" type="checkbox"/> (a) THE PERMITTEE HAS OBTAINED THE NECESSARY APPROVALS FROM THE APPROPRIATE AUTHORITIES TO BEGIN CONSTRUCTION.	
<input checked="" type="checkbox"/> (b) PROPER ARRANGEMENT HAS BEEN MADE FOR FINANCING (mortgage commitments, grants, etc.).	
<input checked="" type="checkbox"/> (c) CONTRACTS FOR ENGINEERING SERVICES HAVE BEEN EXECUTED.	
<input checked="" type="checkbox"/> (d) DESIGN PLANS AND SPECIFICATIONS HAVE BEEN COMPLETED.	
<input checked="" type="checkbox"/> (e) CONSTRUCTION HAS COMMENCED.	
<input checked="" type="checkbox"/> (f) CONSTRUCTION AND/OR EQUIPMENT ACQUISITION IS ON SCHEDULE.	
<input checked="" type="checkbox"/> (g) CONSTRUCTION HAS BEEN COMPLETED.	
<input type="checkbox"/> (h) START-UP HAS COMMENCED.	
<input type="checkbox"/> (i) THE PERMITTEE HAS REQUESTED AN EXTENSION OF TIME.	
<b>Comments:</b> All compliance schedules associated with the current permit have been completed. Due to continued excursions the facility has begun implementing Phase III TMDL Implementation plant. This plan was required and has been approved by EPA.	

	PERMIT NO. <b>DC0000094</b>
<b>SECTION K - SELF-MONITORING PROGRAM</b>	
<b>PART 1 - FLOW MEASUREMENT</b> (Further explanation attached <u>      X      </u> ) PERMITTEE FLOW MEASUREMENT MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT. <span style="float: right;"><u>  X  </u> YES   <u>  </u> NO   <u>  </u> N/A</span> DETAILS:	
(a) PRIMARY MEASURING DEVICE PROPERLY INSTALLED.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
TYPE OF DEVICE <u>  </u> WEIR <u>  </u> PARSHALL FLUME <u>  </u> MAGMETER <u>  </u> VENTURI METER <u>  X  </u> OTHER (Specify <u><b>Totalizer (~water meter) @ Outfall 003. Outfall 101 and 013 estimate flow using rainfall and site specific runoff coefficients.</b></u> )	
(b) CALIBRATION FREQUENCY ADEQUATE. (Date of last calibration <u>      Outfalls 003 meter does not need calibration      </u> )	<u>  </u> YES <u>  </u> NO <u>  X  </u> N/A
(c) PRIMARY FLOW MEASURING DEVICE PROPERLY OPERATED AND MAINTAINED.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(d) SECONDARY INSTRUMENTS (totalizers, recorders, etc.) PROPERLY OPERATED AND MAINTAINED.	<u>  </u> YES <u>  </u> NO <u>  X  </u> N/A
(e) FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGES OF FLOW RATES.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
<b>PART 2 - SAMPLING</b> (Further explanation attached <u>      X      </u> ) PERMITTEE SAMPLING MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT. <span style="float: right;"><u>  X  </u> YES   <u>  </u> NO   <u>  </u> N/A</span> DETAILS: <b>Pepco contractors &amp; PES collect all samples &amp; analyze pH on site. Samples for other permitted analytes are sent to a contract laboratory (Microbac Laboratories Inc. or Cape Fear)</b>	
(a) LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(b) PARAMETERS AND SAMPLING FREQUENCY AGREE WITH PERMIT.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(c) PERMITTEE IS USING METHOD OF SAMPLE COLLECTION REQUIRED BY PERMIT. IF NO, <u>  X  </u> GRAB <u>  </u> MANUAL COMPOSITE ( <b>Manhole K</b> ) <u>  </u> AUTOMATIC COMPOSITE <u>  </u> FREQUENCY	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(d) SAMPLE COLLECTION PROCEDURES ARE ADEQUATE.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(i) SAMPLES REFRIGERATED DURING COMPOSITING	<u>  </u> YES <u>  </u> NO <u>  X  </u> N/A
(ii) PROPER PRESERVATION TECHNIQUES USED	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(iii) FLOW PROPORTIONED SAMPLES OBTAINED WHERE REQUIRED BY PERMIT	<u>  </u> YES <u>  </u> NO <u>  X  </u> N/A
(iv) SAMPLE HOLDING TIMES PRIOR TO ANALYSES IN CONFORMANCE WITH 40 CFR 136.3	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(e) MONITORING AND ANALYSES BEING PERFORMED MORE FREQUENTLY THAN REQUIRED BY PERMIT.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(f) IF (e) IS YES, RESULTS ARE REPORTED IN PERMITTEE'S SELF-MONITORING REPORT.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
<b>PART 3 - LABORATORY</b> (Further explanation attached <u>      X      </u> ) PERMITTEE LABORATORY PROCEDURES MEET THE REQUIREMENTS AND INTENT OF THE PERMIT. <span style="float: right;"><u>  X  </u> YES   <u>  </u> NO   <u>  </u> N/A</span> DETAILS: <b>Contract Lab was not visited during subject CEL.</b>	
(a) EPA APPROVED ANALYTICAL TESTING PROCEDURES USED. (40 CFR 136.3)	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(b) IF ALTERNATE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED.	<u>  </u> YES <u>  </u> NO <u>  X  </u> N/A
(c) PARAMETERS OTHER THAN THOSE REQUIRED BY THE PERMIT ARE ANALYZED.	<u>  </u> YES <u>  X  </u> NO <u>  </u> N/A
(d) SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(e) QUALITY CONTROL PROCEDURES USED. <span style="float: right;"><b>By Contract Lab</b></span>	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(f) DUPLICATE SAMPLES ARE ANALYZED <u>  10%  </u> OF TIME.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(g) SPIKED SAMPLES ARE USED <u>      10%  </u> OF TIME.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(h) COMMERCIAL LABORATORY USED. <span style="float: right;"><b>O&amp;G, TSS, Metals, PCBs</b></span>	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
(i) COMMERCIAL LABORATORY STATE CERTIFIED.	<u>  X  </u> YES <u>  </u> NO <u>  </u> N/A
LAB NAME: (1) <b>Microbac Laboratories, Inc.</b> (Lab picks up samples at PEPCO site)/ (2) <b>Cape Fear Analytical, LLC</b> LAB ADDRESS: <b>Baltimore Division, 2101 Van Deman Street, Baltimore, MD 21224. Tel. 410-633-1800/6553 / 3306 Kitty Hawk Road, Suite 120 Wilmington, NC 28405</b>	
<b>Comments:</b> 1. Spiked samples are used all year instead of every 6 months, 10% of samples are spiked. 2. Both the on-site and contract laboratories passed the DMR-QA Study #34 that is required by EPA.	





## **Inspection Narrative**

**Water Compliance Evaluation Inspection  
Potomac Electric Power Company, Inc.  
Benning Road Generating Station  
3400 Benning Road, NE  
Washington, DC 20019**

**NPDES Permit No. DC0000094**

**Inspection Date:** May 6, 2015

**DDOE Inspectors:** David Pilat, Environmental Protection Specialist  
Isaac Kelley, Environmental Protection Specialist

**PEPCO Representatives:**

1. Fariba Mahvi, Lead Environmental Engineer PEPCO Holdings, Inc,
2. Heather Brinkerhoff, Environmental Health and Safety Consultant, HB Consulting, LLC,
3. Mike Williams, Power Plant Asset Manager, PEPCO Energy Services,
4. Larry J. Freeman, Site Manager, PEPCO Energy Services,
5. Larry Merkel, Lead Construction Mechanic, PEPCO Holdings, Inc.
6. Terry Meno, Environmental Technician, PEPCO Holdings, Inc.
7. Steve Ortel, Lab Manager, PEPCO Holdings, Inc., and
8. David Barrow, Chemistry Lab Technician, PEPCO Holdings, Inc.



## 1. Introduction

On May 6, 2015, the Water Quality Division (WQD) of the District Department of the Environment (DDOE) conducted a National Discharge Elimination System (NPDES) Water Compliance Evaluation Inspection (CEI) at the Potomac Electric Power Company, Inc. (PEPCO), Benning Road Generating Station, located at 3400 Benning Road, NE, Washington, D.C. 20019 (or the facility). WQD inspectors Isaac Kelley and David Pilat reviewed records, interviewed personnel, conducted an inspection tour of the facility, photo documented the current state of the facility (**Attachment 1**), and completed an EPA Form 3560-3 Water Compliance Inspection Report (**Attachment 2**).

The weather was sunny with temperature of about 75°F. May 5th was the date of the last recorded rain event, 0.05 inches of rain was recorded at Reagan National Airport (NCDC) on this date.

## 2. Facility Background

PEPCO, which is referred to in NPDES Permit No. DC0000094 as “Benning Generating Station” is located on approximately 77 acres of land and contributes stormwater and process water to the discharges authorized by the Permit. The facility consists of the footprint of a former power generation station, a 230 kV switchyard, a 69 kV switchyard, fleet services, office and security services, transmission and distribution shops, transformer repair and testing shops, storage buildings, several parking areas, a hazardous waste/PCB handling storage facility, hazardous waste accumulation trailer, asbestos trailer, subsidiary and contractor facilities, and various outdoor storage areas (**Figure 1**). The generating station is owned by Potomac Power Resources (PPR) [a wholly owned subsidiary of PEPCO Energy Services (PES)].

In 2011, PEPCO transitioned from North American Energy Services (NAES) to PES for operation and maintenance of the Benning Road Generating Station. Prior to closure and decommissioning activities, the generating station was comprised of two fuel oil based steam generators, each with a rated output of 275 megawatts (used mainly during peak winter and summer seasons when electricity demand is high). There were also two fuel oil based package boilers for auxiliary and building services. The generation station used No. 2 fuel oil for start-up, and then switched to No. 4 fuel oil for sustained operation. Approximately 4.2 million gallons of fuel was stored on-site. When running at full capacity the plant used 600 gallons of No. 4 fuel oil per minute. The facility representatives indicated that the facility maintains a Spill Prevention, Control, and Countermeasure (SPCC) plan because of the large quantities of chemicals and oil stored at the site.

## 3. Facility Closure Plans

As of June 1 2012, power generating operations at PEPCO plant ceased and plant decommissioning commenced based on the facility’s decommissioning plan. PEPCO has a detailed plant closure plan; this plan was not reviewed at the time of the inspection. Facility

representatives stated that the closure will be done in accordance with all environmental regulatory requirements established by the District of Columbia and federal agencies. It is estimated that plant closure will be completed by the end of May 2015. During the inspection, the only items that remain to be completed were removal of the cooling tower substructure and minimal site restoration activities (**Photos 1 and 2**).

PEPCO's NPDES Permit (DC0000094) was issued on June 19, 2009 and expired on June 18, 2014. The facility submitted its application for permit renewal to EPA 180 days prior to permit expiration and the current permit has been administratively continued. The permit authorizes discharge of both process water (cooling water blow down and cooling tower basin wash water) and stormwater runoff. Each of these waste streams is described in the permit. Currently, process water associated with the power plant is no longer produced, but stormwater has continued to accumulate and be discharged. The current stormwater infrastructure and the two onsite oil/water separators will be left in place. Based on the re-grading going on at the site, there may be some changes (additions) to the stormwater infrastructure and monitoring points.

In order to comply with District of Columbia and federal government stormwater regulations the current NPDES Permit and associated compliance monitoring programs will be continued and maintained until a new permit is issued, this will likely be completed following completion of site restoration. The plant personnel stated that all facility controlled river water inlets have been plugged and the plant will discontinue the use of the sanitary sewer system. The main river water intake structure, which is regulated by the United States Army Corps of Engineers, will be abandoned in place.

In January 2011, PEPCO and DDOE entered into a Consent Decree, which requires PEPCO to conduct a Remedial Investigation and Feasibility Study (RI/FS) of environmental conditions at the PEPCO facility and the adjacent areas of the Anacostia River. The Consent Decree was finalized on December 1, 2011. PEPCO has stated that plant closure and decommissioning procedures will not interfere with the consent decree compliance. Assessment work in the Anacostia River and on PEPCO's property has commenced and is ongoing.

#### **4. Records and Reports**

Discharge Monitoring Reports (DMRs), the facility's Stormwater Pollution Prevention Plan (SWPPP), Spill Prevention, Control, and Countermeasure plan (SPCC), and monthly stormwater self inspection reports were reviewed as part of the inspection. Specifically, DMRs from November 2013 to April 2015 were reviewed along with all the supporting lab analysis and flow data used to generate the reports. The DMR and supporting data appeared to be adequate. A cursory review for completeness and accuracy identified no discrepancies. It was noted that for the period reviewed, 9 permit excursions were documented. The excursions are listed below in Table 1.



Table 1: Permit Excursions between the FY 2014 and FY 2015 CEI

Excursion Date	Excursion Location	Analyte						
		TSS	Copper	Lead	Iron	Zinc	O&G	pH
April 7, 2014	Outfall 013		X			X		
April 15, 2014	Outfall 013		X		X	X		
April 15, 2014	Outfall 101/Manhole K							X
September 25, 2014	Outfall 013		X					
October 21, 2014	Outfall 013		X					
October 21, 2014	Outfall 101/Manhole K							X

In addition to the excursions detailed above, concentrations of metals measured in the effluent samples collected from Outfall 101 (Manhole K) as part of the permit monitoring schedule, are consistently detected above effluent limitations for Outfall 013 discharges and DC Water Quality Standards.

The facility representatives indicated that following the completion of the plant closure, SWPPP and SPCC plans will be updated to reflect changes made to the facility. The inspectors reviewed the 2012 SWPPP. The plan was updated and included the recommendations made by AMEC's (PEPCO's environmental consultant) 2011 annual report of the TMDL implementation plans and the PCB and Iron Source Tracking and Pollution Minimization Plan. The facility's SWPPP and SPCC plan area combined into one document, titled Integrated Contingency Plan (ICP), which during normal operation was updated annually. Due to plant shut down the ICP has not been recently revised, but will be updated following the complete shutdown and removal of all fuel from the facility. The inspectors reviewed the 2012 ICP as part of this inspection. The 2012 was appropriately signed by the responsible corporate official.

The facility previously maintained two in-house (onsite) laboratories. The first was located at the power generation station. This laboratory is no longer in use, but was previously used to monitor effluent samples for parameters such as residual chlorine and pH. The second is the Chemical Lab located at the Chemical Building. This lab collects and analyzes the PEPCO samples from the oil-water separators for pH.

Samples collected for analyses of oil and grease (O&G), total suspended solids (TSS), PCB Aroclor, and metals are picked up the same day or the following day by courier and transferred to Microbac Laboratories, Inc. (Microbac) in Baltimore, Maryland. Samples collected for analyses of PCB congeners are sent to Cape Fear Analytical, LLC (Cape Fear) in North Carolina. A review of the chemical lab's calibration log books indicated the use of a 3-point procedure to calibrate its pH meters every month. The pH buffer solutions used in the calibration were all current at the time of this inspection (**Photo 3**).

## **5. Permit Verification**

PEPCO's NPDES Permit (DC0000094) was issued to the facility on June 19, 2009 and expired on June 18, 2014. As previously stated, the permit has been administratively continued. Due to plant closure and decommissioning, the facility is no longer as described in the permit. The permit has monitoring and effluent limit requirements at its outfalls or monitoring points. All known discharges from the facility are permitted.

## **6. Operation and Maintenance**

### **(a) Wastewater**

The facility has two oil-water separator treatment systems:

(i) Oil-water separation/settling system at Outfall 201 was designed to remove oil and grease from utility wastewater and a No. 2 fuel oil loading area. Monitoring point 201 is the discharge point from this oil-water separator. In 2011, the facility installed a new oil-water separator system, which is currently operational and in-service (**Photo 4**). Facility representatives stated that, currently, it is the plan to maintain this oil water separator for the treatment of stormwater.

(ii) Oil-water separation/settling/filtration system at Outfall 003 is a treatment system designed to remove oil, grease, and solids from water that is removed from utility manholes throughout PEPCO's service area. The treatment system operates in batch mode and consists of an oil-water separator, storage, and settling tanks followed by a two staged filter system of cloth and charcoal media (**Photos 5, 6, and 7**). The treated effluent is held in an underground tank from where it is sampled, and upon receipt of analytical results showing that no contaminants are present above effluent limits is pumped as a batch through Outfall 003 to the Outfall 013 pipeline. If necessary, pH is adjusted before discharging. At the time of the inspection, the treatment system was not discharging to Outfall 003. The facility representatives stated that the two on-site oil-water separators will not be removed as part of the plant closure procedures.



## **(b) Stormwater**

Stormwater runoff from the facility is conveyed through a drainage system and is discharged to the Anacostia River and the Districts Municipal Separate Stormwater System (MS4) at various outfalls. Most of the stormwater runoff from the PEPCO's service center area is conveyed through a 36-inch and 54-inch storm drainpipe to the Anacostia River via Outfall 013 (**Photo 8**). The monitoring/sampling location for Outfall 013 is located near the property boundary within the PES power plant area and is located approximately 500 ft from the point of discharge into the Anacostia River (end of 54" outfall pipe). Stormwater catch basins within the demolition area have been covered with filter cloth, oil absorbent booms, and rip-rap to remove excess debris generated during demolition from entering the basins (**Photo 9**).

The NPDES Permit (DC0000094) also authorizes the facility to discharge stormwater from Outfall 101, whose drainage area includes the transformer area on the west side of the power generating building (power plant). Manhole K, the original monitoring/sampling location for Outfall 101, has been eliminated because tidal influence from the river often made representative sampling difficult. In accordance with the reissued permit's compliance schedule, the facility has developed an alternative to sample collection at the Manhole K location, which consists of compositing grab samples from 7 upstream storm drains on the west side of the power plant that discharge to Manhole K (**Photo 10**).

The facility has housekeeping procedures and best management practices (BMPs) in place to prevent or minimize the release of pollutants to the environment. These BMPs include: adequate dikes and secondary containment, spill containment and clean-up kits, oil absorbent booms and filter cloth at inlets and drains, Low Impact Developments (LIDs), monthly stormwater inspections, and a metal removal and management program (**Photos 11.**)

The facility representatives stated that monthly stormwater inspections are conducted by PES staff for the generating station (power plant) area, and by PEPCO staff for the remainder of the facility site. Both PEPCO and PES use the same reporting format, which is in the form of a checklist. The forms are signed by their respective inspectors, then reviewed and initialed by their managers. The PEPCO and PES reports currently appear to meet the intent of EPA's Permit.

## **7. Compliance Schedules**

Part VII. Special Conditions H. Manhole K. of the permit required the facility to submit for comment to EPA and DDOE, a plan (with an implementation schedule) to retrofit Manhole K into a reliable monitoring point for stormwater discharging from Outfall 101. The goal was to ensure that the manhole is not affected by high tides. According to the facility representatives, Manhole K sampling now consists of compositing grab samples from 7 upstream storm drains on the west side of the power plant that discharge to Manhole K. Sampling pans are inserted into each drain to collect the grab samples which are then composited. PEPCO has contracted

AMEC, their environmental consulting engineers, to conduct the sampling. This sampling procedure has been implemented and is a part of PEPCO's routine self-monitoring program.

Part VII. Special Conditions Section A. Conditions Applicable to PCB Sampling and Limits Condition #4 of the permit requires that, upon detection of PCBs analyzed by method 1668B at or above the detectable level, the facility must submit to EPA and DDOE a plan to determine the source or sources of the PCB discharge and a pollutant minimization plan. In addition, Part VII Special Condition Section D Iron of the permit requires the facility to conduct a study to determine the source or sources of iron in its discharge and within 3 years of the permit issuance develop and install BMPs at appropriate locations to reduce the release of total iron to 1.0 mg/l. In compliance with these requirements PEPCO contracted AMEC to conduct the appropriate studies and to develop the plan to meet the permit criteria. In 2011, AMEC submitted to PEPCO a PCB and Iron Source Tracking and Pollutant Minimization Plan. This plan is included in PEPCO's SWPPP. In accordance with AMEC's findings and recommendations, PEPCO completed the implementation of a total suspended solids removal system by installing a solids and metal reducing filtering system in each of their on-site stormwater drains. In addition, the facility has implemented a metal removal and management program that incorporates regular monthly inspections to remove or cover all exposed metal on the yard.

Part VII. Special Condition Section E. TMDL Implementation Plan of the permit requires the facility to submit a plan to EPA and DDOE describing all previous, on-going, and future efforts by the permittee to meet pollutant reduction loads required by the Anacostia River TMDL. In compliance with this permit condition, PEPCO contracted AMEC to complete the TMDL Implementation Plan. In 2011 AMEC submitted to PEPCO a TMDL Implementation Plan. This plan is also included in PEPCO's SWPPP and incorporates the PCB and Iron source Tracking and Pollutant Minimization Plan. AMEC's implementation plan employed a three Phase approach to reduce the concentration of contaminants in their discharge to within limits set forth in the TMDL. Phase I and Phase II have been completed and consisted of the installation of the stormwater inlet filters and implementation of a metal removal and management program, respectively. Phase III requires the implementation of LIDs. PEPCO has installed some of the planned LIDs, but will not complete the installation of all LIDs until the completion of planned plant closure.

## **8. Self Monitoring Program**

The facility has a self monitoring program. The flow measuring device (in-line totalizer water-type flow meter) at Outfall 003 appeared to be working properly at the time of the inspection and according to facility representatives, does not need calibration. Outfall 201's flow is estimated by metering running times (hours) of the oil-water separator's 2 influent pumps and applying their pump ratings (**Photo 12.**)



The overall flow from Outfall 013 is estimated from the summation of the wastewater flow at the outfalls and stormwater runoff calculated using rainfall data and runoff coefficients for the various sections of the facility. This approach appears to be consistent with Part I B. Effluent Limitations and Monitoring Requirements- Storm Water Discharges of the permit.

The facility representatives indicated that, based on the recommendations of the 2008 compliance inspection, they continue to directly sample for oil and grease using a glass bottle inserted in a plastic sample holder, which is tied to a stainless steel rod. Residual chlorine and pH samples are collected and analyzed within 15 minutes and documented in their respective lab's log books. Sample temperatures are also documented on chain of custody forms (**Photo 13**.) PES's monthly stormwater inspection records are essentially the same as PEPCO's. The facility's self monitoring program seemed to be in compliance with the permit requirements.

#### **9. Laboratory**

The facility includes one on-site laboratory and contracts two off-site laboratories. Until last year the facility operated two onsite laboratories, but due to the plant closure the PES lab, previously located in the power plant, is no longer in service. PES personnel maintain a small storage area in the office trailer where they store and calibrate their pH probe and chlorine testing kit and maintain a refrigerator for temporary sample storage.

- PES personnel use the small PES storage area to analyze the facility's NPDES permit effluent samples for residual chlorine and pH. They also collect TSS, Oil & Grease, PCB, and Metals samples which they preserve, as necessary, and refrigerate before shipment to Microbac or Cape Fear laboratories. PES personnel monitor Outfalls 013 and 201. As noted earlier, PEPCO has contracted AMEC to monitor Outfall 101 (Manhole K) during storm events. The pH buffer solutions used in the calibration were not expired at the time of this inspection; calibration records were up to date.
- The PEPCO lab, located where PEPCO's electrical services (shops, etc.) are based, serves PEPCO's electric utility operations and supports the PEPCO and PES personnel's self-monitoring obligations regarding the facility's NPDES permit. Specifically, samples are collected from Outfall 003 and analyzed for pH. Samples are also collected for analysis of TSS, oil & grease, and PCB and are prepared for pickup and analysis by Microbac or Cape Fear laboratories. The samples are kept in a refrigerator until they are picked up by the lab or its courier.

The PEPCO lab and PES meters calibration log books indicated that each lab uses a 3-point procedure to calibrate their respective pH meters for each of the monthly samples (**Photo 14**). Also, their respective pH buffer solutions (4, 7, and 10) used in their calibrations were all current (unexpired) at the time of this inspection.

As previously stated, the facility contracts analytical services to two off-site laboratories; Microbac and Cape Fear. Microbac analyzes the facility's samples for TSS, oil & grease, and metals. Cape Fear analyzes the facilities samples for PCB congeners. Microbac lab conducts quality control duplicate sample analysis and internal spike analysis on every tenth sample received. Microbac was not included as part of the subject inspection. Only Microbac and PEPCO's labs participate in the EPA's DMR QA Studies and both passed last year's study.

## 10. Effluent and Receiving Waters

The facility's permitted discharges consist of the following: non-contact cooling water, cooling tower blow down, treated wastewater effluent (oil/water separator, settling, and filtration), cooling tower basin wash water, cooling water from boiler feed pumps, demineralization, regeneration wastes, groundwater infiltration sump water, fireside washing, miscellaneous cleaning waste, water for hydrostatic tank testing, and stormwater. A majority of these flows are discharged to the Anacostia River (through wetlands) via Outfall 013. Due to plant closure and decommissioning, no process water was being produced during the CEI. PES staff samples and conducts self-monitoring activities at Outfalls 101, 201 and 013 while PEPCO staff samples Outfall 003. Effluent samples for Outfall 013 are collected at a manhole roughly five hundred feet upgradient from the end of the discharge pipe. Samples for Outfalls 003 and 201 (oil-water separators) are collected at the end of their respective treatment system's discharge pipe before entering Outfall 013. Before the plant closure and decommissioning, samples for Outfalls 202 and 203 were collected by PES staff from the cooling tower sumps.

The following outfalls are listed in the Permit. Several of these outfalls are internal and are found within the extents of the facility. Additionally, several of these outfalls have monitoring requirements and effluent limits.

Outfall	Description	Monitoring	Effluent Limits
003 <sup>1</sup>	Internal, oil-water separator	X	X
013 <sup>2</sup>	Discharges to Anacostia River	X	X
101 <sup>3</sup>	Stormwater, Discharges to Anacostia River	X	
201 <sup>4</sup>	Internal, wastewater from oil-water separator, reverse osmosis regenerate, boiler blow down	X	X
202 <sup>5</sup>	Internal, cooling tower blow down	X	X
203 <sup>5</sup>	Internal, cooling tower blow down	X	X

### Notes:

1. Monitoring point 003 is the discharge point from a treatment system designed to remove oil, grease, and solids from water removed from utility manholes and transported to the facility. The treatment system operates in batch mode and consists of an oil-water



separator, settling tank followed by a two staged filter system of cloth and charcoal media.

2. Monitoring point 013 has two sets of monitoring requirements and effluent limits. These requirements vary depending on whether or not there is a discharge of cooling tower blow down. See Part I.B and Part VII of the permit.
3. Monitoring point 101 is manhole K for monitoring stormwater from the transformer area on the west side of the power plant. As required by the permit, the facility has modified their sampling method due to tidal interference within Manhole K as noted above (See **Section 7: Compliance Schedules**). The outfall discharges to the Anacostia River across Benning Road.
4. Monitoring point 201 is the discharge point for the treated wastewater flowing from the new oil-water separator which was put in service on March 31, 2011.
5. Monitoring points 202 and 203 have two sets of monitoring requirements and effluent limits. These requirements vary depending on whether or not there is a discharge of cooling tower blow down (Part I.D.) or cooling tower wash water (Part I.E). According to Ms. Brinkerhoff (HB Consulting), only the cooling tower blow down is discharged to the river.
6. Due to plant closure, process effluent will no longer be produced and Outfalls 202 and 203 are no longer sampled.

**(a) Outfall 003**

Outfall 003 is an internal outfall that discharges batch flow (pumped) from the treated water holding tank to the manhole of the 48" section of the main pipeline, which ultimately becomes the 54" main pipeline discharging as Outfall 013. Outfall 003's discharge is measured by an in-line (totalizer) flow meter in the effluent discharge line and sampled from the underground effluent holding tank prior to discharge and water is discharged only after results indicate the water is in compliance with permit requirements. The outfall was not discharging at the time of inspection. The treatment system (oil-water separator, settling tank, and filters) was operable but not in operation at the time of inspection.

**(b) Outfall 201**

Outfall 201 is a major internal monitoring and discharge point for the facility's industrial wastewater and some stormwater. A duplex pump system (each rated at 500 gpm) intermittently pumps the stormwater and wastewater from the various power plant related processes to the new oil/water separator that has been in operation since March 31, 2011. According to the facility representatives, the system has a surge valve which would bypass treatment and flow directly to Outfall 201 if ever activated. They pointed out that the valve is kept in a locked position. As noted above, Outfall 201's flow is estimated by metering running times (hours) of the oil water separator's 2 influent pumps and applying their pump ratings to calculate its flow.

Outfall 201 discharges into a manhole mounted on a 48" section of the Outfall 013 pipeline. Here it mixes with any stormwater and other process wastewater (i.e. Outfall 003) from up

gradient and any ensuing down gradient stormwater and wastewater (i.e. previously Outfalls 202 & 203, now eliminated) that enters the main pipeline discharging to Outfall 013. There was no discharge from Outfall 201 observed during the inspection.

**(c) Outfalls 202 and 203**

Both Outfalls 202 and 203 formerly received blow down discharges from cooling towers for units 15 and 16, respectively, which were then conveyed to Outfall 201. Flow from Outfall 202 and Outfall 203 were estimated using a valve rating system, according to facility representatives. Outfalls 202 and 203 discharged only when the facility was discarding the cooling water because of high conductivity. Each tower had a pump house for cooling (river) water where pH adjustment could also be made, if necessary. Samples for Outfalls 202 and 203 were collected from the cooling tower sumps. No discharge was observed during the CEI as the cooling towers were not in operation due to the power plant decommissioning. Again, due to plant closure the discharges to outfalls 202 and 203 have been discontinued and both outfalls have been closed.

**(d) Outfall 013**

Outfall 013 is the facility's largest outfall. It is a 54" pipe that discharges a combined stream of both process wastewater and stormwater. The permit regulates the various discharges originating from 2 oil-water separators, non-contact cooling water, cooling tower blow down, basin cleaning wastes from two cooling towers, and stormwater from several locations within the facility. The flow from Outfall 013 is estimated from the summation of the process outfalls and stormwater runoff calculated using rainfall data and runoff coefficients for the various sections of the facility. This approach appears to be consistent with Part I. B. of the permit.

The outfall discharges into a wetland, a few hundred feet from the Anacostia River. Outfall 013 was not observed discharging water during the CEI. The receiving water at the discharge point of 013 was brownish in color and turbid or cloudy in appearance. It was not apparent where the turbidity originated from but it did not seem to be directly related to the outfall. There are other outfall pipes adjacent to Outfall 013 which apparently discharge stormwater from nearby areas of the District.

**(e) Outfall 101**

Outfall 101 discharges stormwater to the Anacostia River, and is located near the facility's river water intake point. It conveys runoff from the transformer area on the west side of the power plant building. As noted above, the facility completed their compliance schedule to allow representative sampling for Outfall 101 since Manhole K, its original monitoring location, has often been impacted by high tides from the Anacostia River. Since there was no stormwater runoff to the source inlets at this time, there was no Outfall 101 discharge to the river except for possible groundwater seepage into the storm drain system or tidal water.

**11. Findings**

- A total of 9 effluent limit excursions were recorded since the completion of the FY 2014 CEI. Proper notification was provided to EPA for each of the excursions.



- Due to repeated metal excursions EPA sent Pepco a Section 308 information request letter on June 5, 2013. The letter and subsequent meetings between Pepco and EPA resulted in drafting of a compliance plan by Pepco for the facility. The plan titled, *Benning Service Center Phase 3 TMDL Implementation Plan for Compliance with the NPDES Permit* was approved by EPA in April 2015. The Plan outlines five actions to be completed with the goal of achieving compliance by December 2015. The objectives outlined include the following:
  - Identify and address condition, activities, or operations at the Benning Service Center (BSC) that may be significant contributors to metals in stormwater;
  - Evaluate and enhance existing stormwater inlet controls;
  - Investigate potential groundwater infiltration to the storm drain system;
  - Conduct targeted sampling of storm drain inlets to identify locations where metals loading is greatest and where additional controls can be employed; and
  - Update the BSC Stormwater Pollution Prevention Plan
- The facility has begun implementing the plan and has completed the installation of enhanced metal filtering stormwater inlet controls.

**Attachments**

1. Photo Log.
2. EPA Form 3560-3 - Water Compliance Inspection Report

## **Inspection Photo Log**

**Water/NPDES Compliance Evaluation Inspection  
Potomac Electric Power Company (PEPCO), Inc.  
Benning Generating Station  
3400 Benning Road, NE  
Washington, DC 20019**

**NPDES No. DC0000094**

**Inspection Date:** May 6, 2015

**DDOE Inspectors:** David Pilat, Environmental Protection Specialist  
Isaac Kelley, Environmental Protection Specialist

**PEPCO Representatives:**

1. Fariba Mahvi, Lead Environmental Engineer PEPCO Holdings, Inc,
2. Heather Brinkerhoff, Environmental Health and Safety Consultant, HB Consulting, LLC,
3. Mike Williams, Power Plant Asset Manager, PEPCO Energy Services,
4. Larry J. Freeman, Site Manager, PEPCO Energy Services,
5. Larry Merkel, Lead Construction Mechanic, PEPCO Holdings, Inc.
6. Terry Meno, Environmental Technician, PEPCO Holdings, Inc.
7. Steve Ortel, Lab Manager, PEPCO Holdings, Inc., and
8. David Barrow, Chemistry Lab Technician, PEPCO Holdings, Inc.







**Photo 1:** The cooling tower substructure. This area is scheduled to be removed before the end of May 2015.



**Photo 2:** The former power plant footprint. The plant has been removed and the area has been re-graded and stone has been placed on the surface to prevent erosion.





**Photo 3:** Non-expired pH buffers in the in-house lab at PEPCO.



**Photo 4:** Oil-water separator at Outfall 201, installed in 2011. Facility representatives stated that the current plant is to continue to use the separator to treat stormwater accumulated from the area.



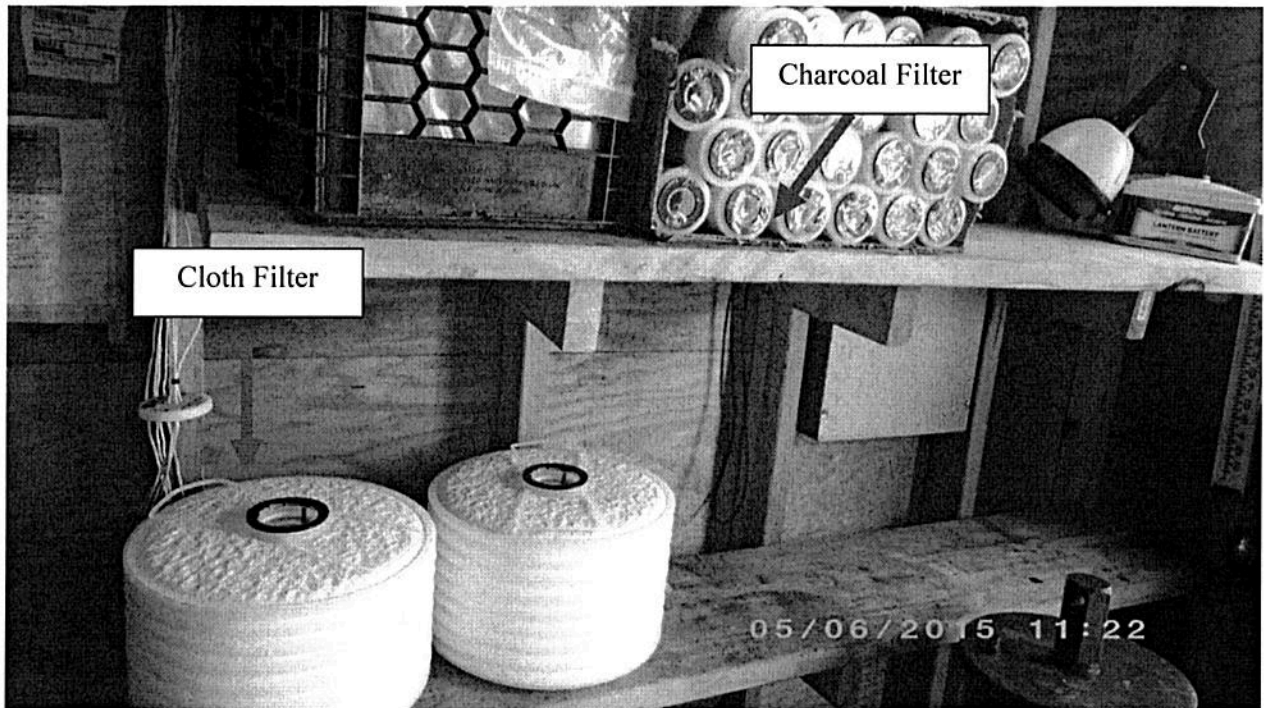


**Photo 5:** Oil-water separator at Outfall 003.

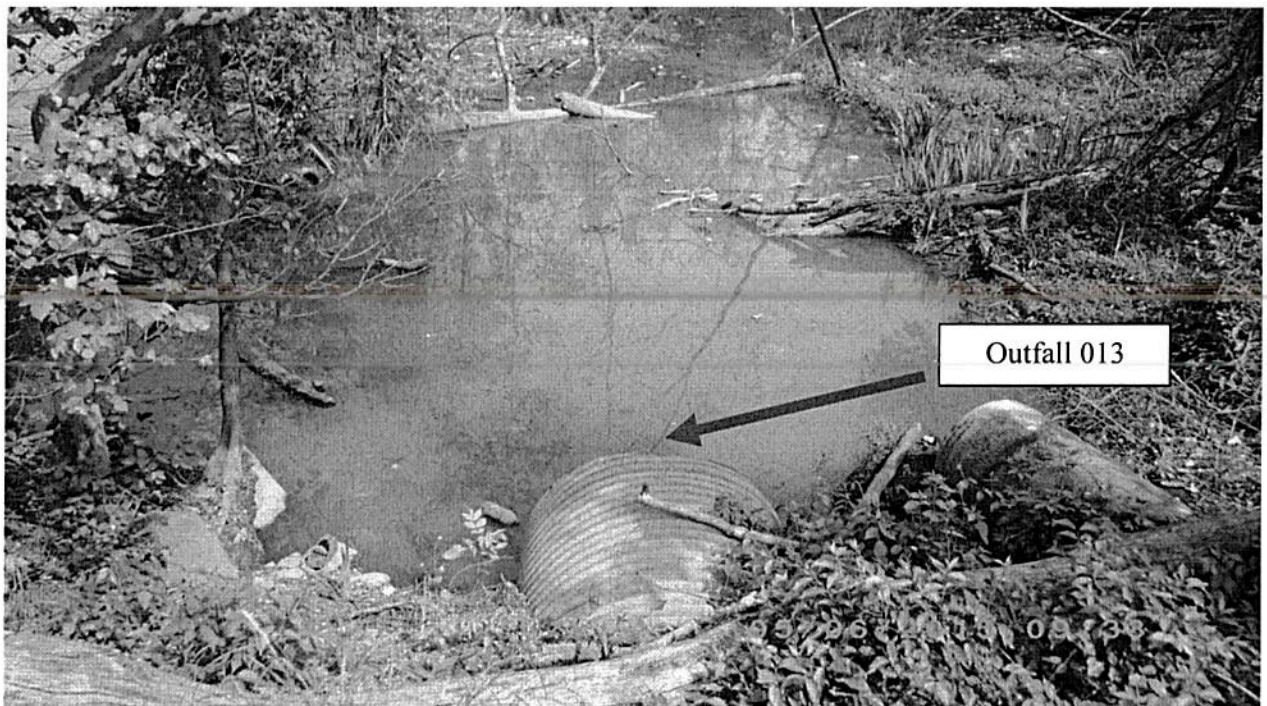


**Photo 6:** A two-stage filter system as part of the oil-water separator treatment system at Outfall 003.





**Photo 7:** Charcoal and cloth filters used in the oil-water separator at Outfall 003.



**Photo 8:** Outfall 013 at the Anacostia River (receiving waters). Notice the additional Outfall pipe on the right.



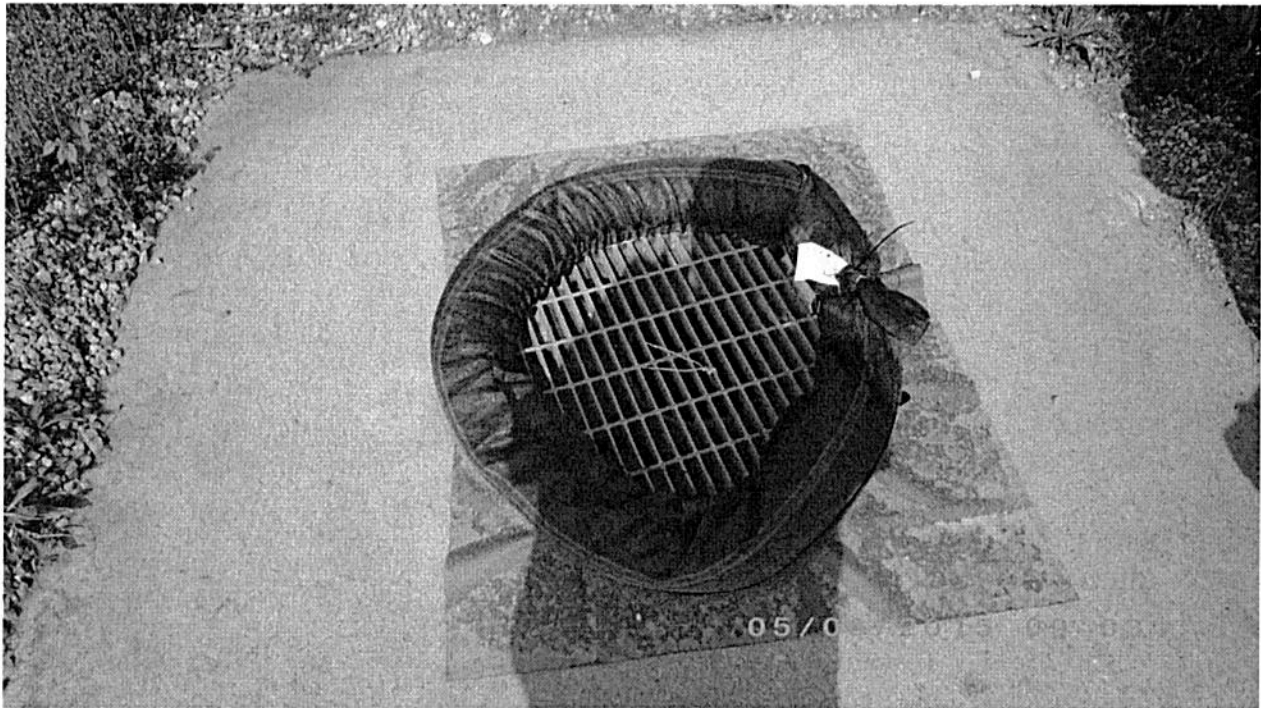


**Photo 9:** Storm sewer catch basins located in the work area have been marked, protected with rip-rap and oil absorbent boom. Upon completion of construction the basins will be fitted with metal-sorbent filter fabric and boom.



**Photo 10:** One of the seven compositing grab sampling locations for Outfall 101.





**Photo 11:** Phase III best management practices implementation – metal-sorbent filter fabric and boom placed over stormwater catch basin.



**Photo 12:** Control panel for oil-water separator's influent pumps, which includes running time (hours) meters used to estimate flow at Outfall 201.





Date	Sample #	Time	4	7	10	Sample pH	Tech	Date
3/9/2015	U9856	1000	4.05	7.45	10.04	6.8	DS3	
3/25/2015	DMRQA35 Cat No 577 Lot No Q035-977	1020	4.02	7.50	10.02	6.41	DS3	
			Buffer Rec'd Date 2/2014 exp'd 11/2015	Buffer Rec'd Date 2/2014 exp'd 4/2016	Buffer Rec'd Date 2/2014 exp'd 12/2015			
3/30/2015	V0001	1000	4.06	7.50	10.10	7.3	DS3	
4/7/2015	DMRQA35 Cat No 577 Lot No Q035-977	1010	4.06	7.50	10.10	6.41	DS3	
			Buffer Rec'd Date 2/2014 exp'd 11/2015	Buffer Rec'd Date 4/7/2015 exp'd 1/2017	Buffer Rec'd Date 2/2014 exp'd 12/2015			
4/7/2015	✓	1110	4.01	7.10	10.01	6.44 6.50	TD	
4/20/15	V0249	1000	4.04	7.00	10.01	7.6	TD	
5/6/15	V0253	1000	4.06	7.02	10.00	7.2	TD	

Photo 14: Up to date calibration records for pH probe used by Pepco's lab.







United States Environmental Protection Agency

Washington, D.C. 20460

**Water Compliance Inspection Report****Section A: National Data System Coding (i.e. PCS)**

Transaction Code      NPDES      yr/mo/day      Inspection Type      Inspector      Fac Type  
1 N    2 5    3 DC0022004 11    12 15/07/29 17    18 C    19 S    20 2  
Remarks  
21 \_\_\_\_\_ 66  
Inspection Work Days    Facility Self-Monitoring Evaluation Rating    B1    QA    \_\_\_\_\_ Reserved \_\_\_\_\_  
67 5 69    70 3    71 \_\_\_\_\_ 72 \_\_\_\_\_ 73 \_\_\_\_\_ 74 \_\_\_\_\_ 75 \_\_\_\_\_ 80

**Section B: Facility Data**

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

NRG Energy

1400 North Royal Street

Alexandria, VA 22314

Entry Time/Date

10:30 AM July 29, 2015

Permit Effective Date

4/20/2000

Exit Time/Date

1:30 PM July 29, 2015

Permit Expiration Date

4/20/2005 (administratively extended)

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

1. Ann Wearmouth, Environmental Engineer; Tel.: 301-955-9028

2. Tim Klares, Environmental Specialist; Tel: 301-843-4439

3. Ron Ulman, Site Coordinator; Tel: 301-646-9963

Other Facility Data (e.g., ISC NAICS, and other descriptive information)

Name, Address of Responsible Official/Title/Phone and Fax Number

Billy Moore, Plant Manager; Tel.: 301-751-6945

Contacted

\_\_\_\_\_ Yes X \_\_\_\_\_ No**Section C: Areas Evaluated During Inspection (Check only those areas evaluated)**

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input type="checkbox"/> Compliance Schedules	<input checked="" type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Laboratory	<input checked="" type="checkbox"/> Storm Water	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

**Section D: Summary of Findings/Comments**

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes

SEV Description

Name(s) and Signature(s) of Inspector(s)

David Pila

Agency/Office/Phone and Fax Numbers

District Department of the Environment  
Water Quality Division - 202.281.3963

Date

07/29/2015

Isaac Kelley For

District Department of the Environment  
Water Quality Division - 202.535.2691

07/29/2015

Robert Burnett

District Department of the Environment  
Water Quality Division -

07/29/2015

Signature of Management Q/A Reviewer

Agency/Office/Phone and Fax Number

PERMIT NO. <u>DC0022004</u>	
<b>SECTIONS F THRU L: COMPLETE ON ALL INSPECTIONS, AS APPROPRIATE. N/A = NOT APPLICABLE</b>	
<b>SECTION F - FACILITY AND PERMIT BACKGROUND</b>	
<b>ADDRESS OF PERMITTEE IF DIFFERENT FROM FACILITY</b> (Including City, County and ZIP code) NRG Energy, LLC 8301 Professional Place, Landover, Maryland 20785	<b>DATE OF LAST PREVIOUS INVESTIGATION BY EPA/STATE</b> <u>16 October 2013</u> <b>FINDINGS</b> SEVE0013 = Improper/Incorrect Reporting. Inadvertently reported recorded pH values rather than the analyzed pH values. Inadvertently reported wrong flow for Outfall 001 for May 2011. Neither inconsistency affected compliance reporting on the DMRs. Follow-up during the October 2013 inspection indicated data being correctly reported.
<b>SECTION G - RECORDS AND REPORTS</b>	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. <span style="float: right;"><u>  X  </u> YES • <u>      </u> NO <u>      </u> N/A</span> DETAILS:	
(a) ADEQUATE RECORDS MAINTAINED OF:	
(i) SAMPLING DATE, TIME, EXACT LOCATION	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(ii) ANALYSES DATES, TIMES	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(iii) INDIVIDUAL PERFORMING ANALYSIS	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(iv) ANALYTICAL METHODS/TECHNIQUES USED	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(v) ANALYTICAL RESULTS (e.g., consistent with self-monitoring report data)	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(b) MONITORING RECORDS (e.g., flow, pH, D.O., etc.) MAINTAINED FOR A MINIMUM OF THREE YEARS INCLUDING ALL ORIGINAL STRIP CHART RECORDINGS (e.g., continuous monitoring instrumentation, calibration and maintenance records). <span style="float: right;"><u>  X  </u> YES <u>      </u> NO <u>      </u> N/A</span>	
(c) LAB EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS KEPT	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(d) FACILITY OPERATING RECORDS KEPT INCLUDING LOGS FOR EACH TREATMENT UNIT.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(e) QUALITY ASSURANCE RECORDS KEPT.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(f) RECORDS MAINTAINED OF MAJOR CONTRIBUTING INDUSTRIES (and their compliance status) USING PUBLICLY OWNED TREATMENT WORKS.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
<b>SECTION H - PERMIT VERIFICATION</b>	
INSPECTION OBSERVATIONS VERIFY THE PERMIT. <span style="float: right;"><u>  X  </u> YES <u>      </u> NO <u>      </u> N/A</span> DETAILS:	
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(b) FACILITY IS AS DESCRIBED IN PERMIT.	<u>      </u> YES <u>  X  </u> NO <u>      </u> N/A
(c) PRINCIPAL PRODUCT(S) AND PRODUCTION RATES CONFORM WITH THOSE SET FORTH IN PERMIT APPLICATION.	<u>      </u> YES <u>  X  </u> NO <u>      </u> N/A
(d) TREATMENT PROCESSES ARE AS DESCRIBED IN PERMIT APPLICATION.	<u>      </u> YES <u>  X  </u> NO <u>      </u> N/A
(e) NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(f) ACCURATE RECORDS OF RAW WATER VOLUME MAINTAINED.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(g) NUMBER AND LOCATION OF DISCHARGE POINTS ARE AS DESCRIBED IN PERMIT.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(h) CORRECT NAME AND LOCATION OF RECEIVING WATERS.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(i) ALL DISCHARGES ARE PERMITTED.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
<b>Comments:</b> *All decommissioning activities have ended. All treatment processes and waste flows have ceased. No effluent is generated and thus sampling is not necessary. The last samples were taken in December of 2013 and records were submitted to DOEE. There is no industrial activity and the former operating areas were mostly free of contaminants, with the exception of coal residue located along the train tracks. In 2013, the facility discharged stormwater under a MSGP. On 20 October 2014 the facility was granted a No Exposure Certification for the MSGP from EPA Region III.	



	PERMIT NO. <u>DC0022004</u>
<b>SECTION I - OPERATION AND MAINTENANCE</b>	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED.	<u>  X  </u> YES• <u>      </u> NO <u>      </u> N/A
DETAILS:	
(a) STANDBY POWER OR OTHER EQUIVALENT PROVISIONS PROVIDED.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(b) ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(c) REPORTS ON ALTERNATE SOURCE OF POWER SENT TO EPA/STATE AS REQUIRED BY PERMIT.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(d) SLUDGES AND SOLIDS ADEQUATELY DISPOSED.	<u>  X  </u> YES•• <u>      </u> NO <u>      </u> N/A
(e) ALL TREATMENT UNITS IN SERVICE.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(f) CONSULTING ENGINEER RETAINED OR AVAILABLE FOR CONSULTATION ON OPERATION AND MAINTENANCE PROBLEMS.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(g) QUALIFIED OPERATING STAFF PROVIDED.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(h) ESTABLISHED PROCEDURES AVAILABLE FOR TRAINING NEW OPERATORS.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(i) FILES MAINTAINED ON SPARE PARTS INVENTORY, MAJOR EQUIPMENT SPECIFICATIONS, AND PARTS AND EQUIPMENT SUPPLIERS.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(j) INSTRUCTIONS FILES KEPT FOR OPERATION AND MAINTENANCE OF EACH ITEM OF MAJOR EQUIPMENT.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(k) OPERATION AND MAINTENANCE MANUAL MAINTAINED.	<u>  X  </u> YES <u>      </u> NO <u>      </u> N/A
(l) SPCC PLAN AVAILABLE.	<u>  X  </u> YES• <u>      </u> NO <u>      </u> N/A
(m) REGULATORY AGENCY NOTIFIED OF BY-PASSING. (Dates <u>                    </u> )	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(n) ANY BY-PASSING SINCE LAST INSPECTION.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
(o) ANY HYDRAULIC AND/OR ORGANIC OVERLOADS EXPERIENCED.	<u>      </u> YES <u>  X  </u> NO <u>      </u> N/A
<b>SECTION J - COMPLIANCE SCHEDULES</b>	
PERMITTEE IS MEETING COMPLIANCE SCHEDULE.	<u>      </u> YES <u>      </u> NO <u>  X  </u> N/A
CHECK APPROPRIATE PHASE(S):	
<u>  </u> (a) THE PERMITTEE HAS OBTAINED THE NECESSARY APPROVALS FROM THE APPROPRIATE AUTHORITIES TO BEGIN CONSTRUCTION.	
<u>  </u> (b) PROPER ARRANGEMENT HAS BEEN MADE FOR FINANCING (mortgage commitments, grants, etc.).	
<u>  </u> (c) CONTRACTS FOR ENGINEERING SERVICES HAVE BEEN EXECUTED.	
<u>  </u> (d) DESIGN PLANS AND SPECIFICATIONS HAVE BEEN COMPLETED.	
<u>  </u> (e) CONSTRUCTION HAS COMMENCED.	
<u>  </u> (f) CONSTRUCTION AND/OR EQUIPMENT ACQUISITION IS ON SCHEDULE.	
<u>  </u> (g) CONSTRUCTION HAS BEEN COMPLETED.	
<u>  </u> (h) START-UP HAS COMMENCED.	
<u>  </u> (i) THE PERMITTEE HAS REQUESTED AN EXTENSION OF TIME.	
<b>Comments:</b> <p>*The power generation facility ceased operating on October 1, 2012 and has been permanently decommissioned. All process flows ceased in July, 2013 and the treatment facilities have been permanently decommissioned as well. There is no power at the facility and the facility now discharges only stormwater by gravity. The SPCC plan is no longer required as all oil storage has been removed from the site and storage/operating containers have been removed or permanently disabled. The facility developed an SWPPP which was provided electronically. The SWPPP is up to date but is no longer needed due to the No Exposure Certification.</p> <p>**Rainwater collects in the following locations: C1 Tunnel Sump; C3 Tunnel Sump; C5 Tunnel Sump; Manhole C-5 Turbine area; Capped Outfall; 009/010 Sump/Tank</p> <p>The water levels are monitored and data compiled in a log kept in the main office. As necessary the water is pumped and removed by Triumvirate Environmental (410-636-3700) as Non-RCRA, Non DOT Regulated Materials- Liquids (Oil, Water) for Recycling. Pumping volumes removed and water depths are also kept in the data logs.</p>	

	PERMIT NO. DC0022004
<b>SECTION K - SELF-MONITORING PROGRAM</b>	
<b>PART 1 - FLOW MEASUREMENT; PERMITTEE FLOW MEASUREMENT MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT.</b>	
_____ YES • _____ NO <u>  X  </u> N/A	
DETAILS:	
(a) PRIMARY MEASURING DEVICE PROPERLY INSTALLED. _____ YES _____ NO <u>  X  </u> N/A	
TYPE OF DEVICE WEIR      PARSHALL FLUME      MAGMETER      VENTURI METER      OTHER (Specify _____.)	
(b) CALIBRATION FREQUENCY ADEQUATE. (Date of last calibration _____) _____ YES _____ NO <u>  X  </u> N/A	
(c) PRIMARY FLOW MEASURING DEVICE PROPERLY OPERATED AND MAINTAINED. _____ YES _____ NO <u>  X  </u> N/A	
(d) SECONDARY INSTRUMENTS (totalizers, recorders, etc.) PROPERLY OPERATED AND MAINTAINED. _____ YES _____ NO <u>  X  </u> N/A	
(e) FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGES OF FLOW RATES. _____ YES _____ NO <u>  X  </u> N/A	
<b>PART 2 - SAMPLING; PERMITTEE SAMPLING MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT.</b>	
_____ YES _____ NO <u>  X  </u> N/A	
DETAILS:	
(a) LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. _____ YES _____ NO <u>  X  </u> N/A	
(b) PARAMETERS AND SAMPLING FREQUENCY AGREE WITH PERMIT. _____ YES _____ NO <u>  X  </u> N/A	
(c) PERMITTEE IS USING METHOD OF SAMPLE COLLECTION REQUIRED BY PERMIT. _____ YES _____ NO <u>  X  </u> N/A IF NO, _____ GRAB _____ MANUAL COMPOSITE _____ AUTOMATIC COMPOSITE      FREQUENCY _____	
(d) SAMPLE COLLECTION PROCEDURES ARE ADEQUATE. _____ YES _____ NO <u>  X  </u> N/A	
(i) SAMPLES REFRIGERATED DURING COMPOSITING _____ YES _____ NO <u>  X  </u> N/A	
(ii) PROPER PRESERVATION TECHNIQUES USED _____ YES _____ NO <u>  X  </u> N/A	
(iii) FLOW PROPORTIONED SAMPLES OBTAINED WHERE REQUIRED BY PERMIT _____ YES _____ NO <u>  X  </u> N/A	
(iv) SAMPLE HOLDING TIMES PRIOR TO ANALYSES IN CONFORMANCE WITH 40 CFR 136.3 _____ YES _____ NO <u>  X  </u> N/A	
(e) MONITORING AND ANALYSES BEING PERFORMED MORE FREQUENTLY THAN REQUIRED BY PERMIT. _____ YES _____ NO <u>  X  </u> N/A	
(f) IF (e) IS YES, RESULTS ARE REPORTED IN PERMITTEE'S SELF-MONITORING REPORT. _____ YES _____ NO <u>  X  </u> N/A	
<b>PART 3 - LABORATORY; PERMITTEE LABORATORY PROCEDURES MEET THE REQUIREMENTS AND INTENT OF THE PERMIT.</b>	
_____ YES _____ NO <u>  X  </u> N/A	
DETAILS:	
(a) EPA APPROVED ANALYTICAL TESTING PROCEDURES USED. (40 CFR 136.3) _____ YES _____ NO <u>  X  </u> N/A	
(b) IF ALTERNATE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. _____ YES _____ NO <u>  X  </u> N/A	
(c) PARAMETERS OTHER THAN THOSE REQUIRED BY THE PERMIT ARE ANALYZED. _____ YES _____ NO <u>  X  </u> N/A	
(d) SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. _____ YES _____ NO <u>  X  </u> N/A	
(e) QUALITY CONTROL PROCEDURES USED. _____ YES _____ NO <u>  X  </u> N/A	
(f) DUPLICATE SAMPLES ARE ANALYZED _____ % OF TIME. _____ YES _____ NO <u>  X  </u> N/A	
(g) SPIKED SAMPLES ARE USED _____ % OF TIME.      monthly/annually _____ YES _____ NO <u>  X  </u> N/A	
(h) COMMERCIAL LABORATORY USED. _____ YES _____ NO <u>  X  </u> N/A	
(i) COMMERCIAL LABORATORY STATE CERTIFIED. _____ YES _____ NO <u>  X  </u> N/A	
LAB NAME _____ N/A _____	
LAB ADDRESS _____ N/A _____	
<b>Comments:</b> •As of the plants final decommission, all discharges have ceased with the exception of stormwater. Many of the outfalls are permanently closed with bolted/gasketed metal caps and/or bricks/mortar and/or concrete. The laboratory has been dismantled and no samples or analysis are required under the No Exposure Certification.	



						PERMIT NO. DC0022004	
<b>SECTION L - EFFLUENT/RECEIVING WATER OBSERVATIONS</b> (Further explanation attached _____.)							
OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	VISIBLE FLOAT SOLIDS	COLOR	OTHER
001	No	No	No	No	No	NA	No flow.
003 (retired)	No	No	No	No	No	NA	No flow.
004 (retired)	No	No	No	No	No	NA	No flow.
005	No	No	No	No	No	NA	No flow.
006	No	No	No	No	No	NA	No flow.
007	No	No	No	No	No	NA	No flow.
008	No	No	No	No	No	NA	No flow.
(Sections M and N: Complete as appropriate for sampling inspections) <b>SECTION M - SAMPLING INSPECTION PROCEDURES AND OBSERVATIONS</b>							
<input type="checkbox"/> GRAB SAMPLES OBTAINED <input type="checkbox"/> COMPOSITE OBTAINED <input type="checkbox"/> FLOW PROPORTIONED SAMPLE <input type="checkbox"/> AUTOMATIC SAMPLER USED <input type="checkbox"/> SAMPLE SPLIT WITH PERMITTEE <input type="checkbox"/> CHAIN OF CUSTODY EMPLOYED <input type="checkbox"/> SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE COMPOSITING FREQUENCY _____ PRESERVATION _____ SAMPLE REFRIGERATED DURING COMPOSITING: <input type="checkbox"/> YES <input type="checkbox"/> NO SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE _____							
<b>SECTION N - ANALYTICAL RESULTS</b> (Attach report if necessary)							
N/A							

**Water/NPDES Compliance Evaluation Inspection**

**NRG Energy (Formerly GenOn Potomac River LLC  
Potomac River Generating Station)  
1400 North Royal Street  
Alexandria, Virginia 22314-1199**

**NPDES No. DC0022004**

**July 29, 2015**

**DOEE Inspectors:**

**David Pilat  
Environmental Protection Specialist**

**Isaac Kelley  
Environmental Protection Specialist**

**Robert Burnett  
Environmental Protection Specialist**

**NRG Energy Representatives:**

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**Ron Ulman  
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